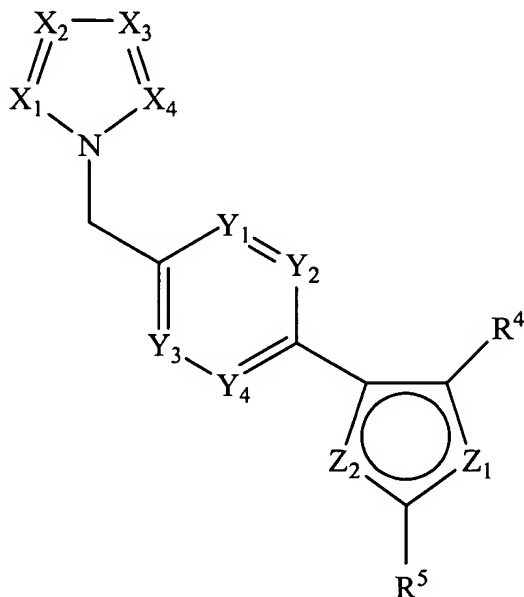


## CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Original) A compound of formula I,



wherein

one of X<sub>1</sub> and X<sub>2</sub> represents -N- and the other represents -C(R<sup>1</sup>)-;

X<sub>3</sub> represents -N- or -C(R<sup>2</sup>)-;

X<sub>4</sub> represents -N- or -C(R<sup>3</sup>)-;

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> independently represent H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy,

C<sub>1-6</sub> alkoxy-C<sub>1-6</sub>-alkyl or halo;

provided that, when X<sup>1</sup> represents -C(R<sup>1</sup>)-, X<sub>3</sub> represents -C(R<sup>2</sup>)- and X<sub>4</sub> represents -C(R<sup>3</sup>)-, then R<sup>1</sup> represents H;

Y<sub>1</sub>, Y<sub>2</sub>, Y<sub>3</sub>, and Y<sub>4</sub> independently represent -CH- or -CF-;

Z<sub>1</sub> represents -CH-, -O-, -S-, -N- or -CH=CH-;

Z<sub>2</sub> represents -CH-, -O-, -S- or -N-;

provided that:

- (a)  $Z_1$  and  $Z_2$  are not the same;
- (b) when  $Z_1$  represents  $-\text{CH}=\text{CH}-$ , then  $Z_2$  may only represent  $-\text{CH}-$  or  $-\text{N}-$ ; and
- (c) other than in the specific case in which  $Z_1$  represents  $-\text{CH}=\text{CH}-$ , and  $Z_2$  represents  $-\text{CH}-$ , when one  $Z_1$  and  $Z_2$  represents  $-\text{CH}-$ , then the other represents  $-\text{O}-$  or  $-\text{S}-$ ;

$R^4$  represents  $-\text{S}(\text{O})_2\text{N}(\text{H})\text{C}(\text{O})\text{R}^6$ ,  $-\text{S}(\text{O})_2\text{N}(\text{H})\text{S}(\text{O})_2\text{R}^6$ ,  $-\text{C}(\text{O})\text{N}(\text{H})\text{S}(\text{O})_2\text{R}^6$ ,

or, when  $Z_1$  represents  $-\text{CH}=\text{CH}-$ ,  $R^4$  may represent

$-\text{N}(\text{H})\text{S}(\text{O})_2\text{N}(\text{H})\text{C}(\text{O})\text{R}^7$  or  $-\text{N}(\text{H})\text{C}(\text{O})\text{N}(\text{H})\text{S}(\text{O})_2\text{R}^7$ ;

$R^5$  represents  $\text{C}_{1-6}$  alkyl,  $\text{C}_{1-6}$  alkoxy,  $\text{C}_{1-6}$  alkoxy- $\text{C}_{1-6}$ -alkyl or di- $\text{C}_{1-3}$ -alkylamino- $\text{C}_{1-4}$ -alkyl;

$R^6$  represents  $\text{C}_{1-6}$  alkyl,  $\text{C}_{1-6}$  alkoxy,  $\text{C}_{1-6}$  alkoxy- $\text{C}_{1-6}$ -alkyl,

$\text{C}_{1-3}$  alkoxy- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{1-6}$  alkylamino or di- $\text{C}_{1-6}$  alkylamino; and

$R^7$  represents  $\text{C}_{1-6}$  alkyl,

or a pharmaceutically-acceptable salt thereof.

2. (Withdrawn) A compound as claimed in claim 1 wherein, when  $X_1$  represents  $-\text{C}(\text{R}^1)-$ , then  $X_3$  represents  $-\text{C}(\text{R}^2)-$  and  $X_4$  represents  $-\text{N}-$ .

3. (Withdrawn) A compound as claimed in claim 2 wherein  $\text{R}^1$  represents H.

4. (Withdrawn) A compound as claimed in claim 1 wherein, when  $X_1$  represents  $-\text{C}(\text{R}^1)-$ , then  $X_3$  and  $X_4$  both represent N.

5. (Original) A compound as claimed in claim 1 wherein, when  $X_1$  represents  $-\text{C}(\text{R}^1)-$ , then  $X_3$  represents  $-\text{C}(\text{R}^2)-$  and  $X_4$  represents  $-\text{C}(\text{R}^3)-$ .

6. (Withdrawn) A compound as claimed in claim 1, wherein, when  $X_1$  represents  $-\text{N}-$ , then  $X_3$  represents  $-\text{N}-$ .

7. (Withdrawn) A compound as claimed in claim 6 wherein, when X.sub.4 represents --C(R<sup>3</sup>)--, then R<sup>3</sup> represents H.

8. (Withdrawn) A compound as claimed in claim 1, wherein, when X<sub>1</sub> represents --N--, then X<sub>3</sub> represents --C(R<sup>2</sup>) and X<sub>4</sub> represents --C(R<sup>3</sup>)--.

9. (Presently amended) A compound as claimed in claim 1, wherein R<sup>1</sup> represents H, C<sub>1-3</sub> alkyl or fluoro CF<sub>3</sub>.

10. (Original) A compound as claimed in claim 9, wherein R<sup>1</sup> represent H or ethyl.

11. (Original) A compound as claimed in claim 1 wherein R<sup>2</sup> represents C<sub>1-3</sub> alkyl, halo or H.

12. (Original) A compound as claimed in claim 11 wherein R<sup>2</sup> represents H or methyl.

13. (Original) A compound as claimed in claim 11 wherein R<sup>2</sup> represents H.

14. (Original) A compound as claimed in claim 1 wherein R<sup>3</sup> represents C<sub>1-3</sub> alkyl, halo or H.

15. (Original) A compound as claimed in claim 14 wherein R<sup>3</sup> represents H.

16. (Original) A compound as claimed in claim 1 wherein Y<sub>1</sub>, Y<sub>2</sub>, Y<sub>3</sub> and Y<sub>4</sub> all represent -CH-.

17. (Original) A compound as claimed in claim 1 wherein Z<sub>1</sub> represents -S- or -CH=CH-.

18. (Original) A compound as claimed in claim 17 wherein Z<sub>1</sub> represents -S-.

19. (Original) A compound as claimed in claim 1 wherein Z<sub>2</sub> represents -CH-.

20. (Original) A compound as claimed in claim 1 wherein R<sup>4</sup> represents -S(O)<sub>2</sub>N(H)C(O)R<sup>6</sup>.

21. (Original) A compound as claimed in claim 1 wherein R<sup>5</sup> represents *n*-butyl or *iso*-butyl.

22. (Original) A compound as claimed in claim 21 wherein R<sup>5</sup> represents *iso*-butyl.

23. (Presently Amended) A compound as claimed in claim 1 wherein, when R<sup>4</sup> represents -S(O)<sub>2</sub>N(H)C(O)R<sup>6</sup>, -S(O)<sub>2</sub>N(H)S(O)<sub>2</sub>R<sup>6</sup> or -C(O)N(H)S(O)<sub>2</sub>R<sup>6</sup>, then R<sup>6</sup> represents *n*-butoxymethyl, *iso*-butoxy or *n*-butoxy.

24. (Original) A compound as claimed in claim 23 wherein R<sup>6</sup> represents *n*-butoxy.

25. (Original) A compound as claimed in claim 1 wherein, when X<sub>1</sub>, X<sub>3</sub> and X<sub>4</sub> all represent -CH-, Y<sub>1</sub>, Y<sub>2</sub>, Y<sub>3</sub> and Y<sub>4</sub> all represent -CH-, Z<sub>1</sub> represents -S- or -CH=CH-, Z<sub>2</sub> represents -CH- and R<sup>5</sup> represents *n*-butyl or *iso*-butyl, then R<sup>4</sup> represents -S(O)<sub>2</sub>N(H)C(O)R<sup>6</sup>, in which R<sup>6</sup> represents -O-*n*-butyl, -O-*iso*-propyl, -O-*iso*-butyl or -CH<sub>2</sub>-O-*n*-butyl.

26. (Presently amended) A compound as claimed in claim 1, which is:  
*N*-butyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butylthio-phene-2-sulfonamide;  
*N*-*iso*-butyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butyl-thiophene-2-sulfonamide;  
*N*-*iso*-propyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butyl-thiophene-2-sulfonamide;

*N*-(butoxyacetyl)-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-sulfonamide;  
~~*N*-butyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-butylthiophene-2-sulfonamide;~~  
*N*-butyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-butylthiophene-2-sulfonamide;  
~~*N*-butyloxycarbonyl-2-(4-imidazol-1-ylmethylphenyl)-4-*iso*-butylbenzene-sulfonamide;~~  
*N*-butyloxycarbonyl-2-(4-imidazol-1-ylmethylphenyl)-4-*iso*-butylbenzenesulfonamide;  
*N*-butyloxycarbonyl-5-*iso*-butyl-3-(4-tetrazol-2-ylmethylphenyl)thiophene-2-sulfonamide;  
*N*-butyloxycarbonyl-5-*iso*-butyl-3-(4-tetrazol-1-ylmethylphenyl)thiophene-2-sulfonamide;  
*N*-butyloxycarbonyl-3-(4-[1,2,4]triazol-1-ylmethylphenyl)-5-*iso*-butyl-thiophene-2-sulfonamide;  
*N*-(butylamino)carbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butyl-thiophene-2-sulfonamide;  
*N*-butylsulfonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-sulfonamide;  
*N*-butylsulfonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-carboxamide;  
~~*N*-butyloxycarbonyl-4-butyl-2-(4-imidazol-1-ylmethylphenyl)benzene-sulfonamide;~~  
*N*-butyloxycarbonyl-4-butyl-2-(4-imidazol-1-ylmethylphenyl)benzenesulfonamide;  
*N*-(2-methoxyethyloxy)carbonyl-3-(4-indazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-sulfonamide;  
*N*-ethyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-sulfonamide;  
*N*-*tert*-butyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butyl-thiophene-2-sulfonamide;  
*N*-butyloxycarbonyl-3-[4-(4-methylimidazol-1-ylmethyl)phenyl]-5-*iso*-butylthiophene-2-sulfonamide;  
*N*-butyloxycarbonyl-3-(4-pyrazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-sulfonamide;  
*N*-butyloxycarbonyl-3-[4-(3-trifluoromethylpyrazol-1-ylmethyl)-phenyl]-5-*iso*-butylthiophene-2-sulfonamide;  
*N*-(*N*-butyl-*N*-methylanino)carbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-*iso*-butylthiophene-2-sulfonamide; or  
*N*-butyloxycarbonyl-3-(4-imidazol-1-ylmethylphenyl)-5-(2-methoxyethyl)-thiophene-2-sulfonamide.

27. (Original) A pharmaceutical formulation including a compound as defined in claim 1, or a pharmaceutically acceptable salt thereof, in admixture with a pharmaceutically acceptable adjuvant, diluent or carrier.

28-31 (Cancelled)

32. (Original) A pharmaceutical formulation including a compound as defined in claim 1, or a pharmaceutically acceptable salt thereof, and an AT1 receptor antagonist, in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

33. (Original) A kit of parts comprising components:

- (a) a pharmaceutical formulation including a compound as defined in Claim 1, or a pharmaceutically acceptable salt thereof, in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier; and
- (b) a pharmaceutical formulation including an AT1 receptor antagonist, in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier, which components (a) and (b) are each provided in a form that is suitable for administration in conjunction with the other.

34. (Original) A pharmaceutical formulation including a compound as defined in claim 1, or a pharmaceutically acceptable salt thereof, and an angiotensin converting enzyme inhibitor, in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

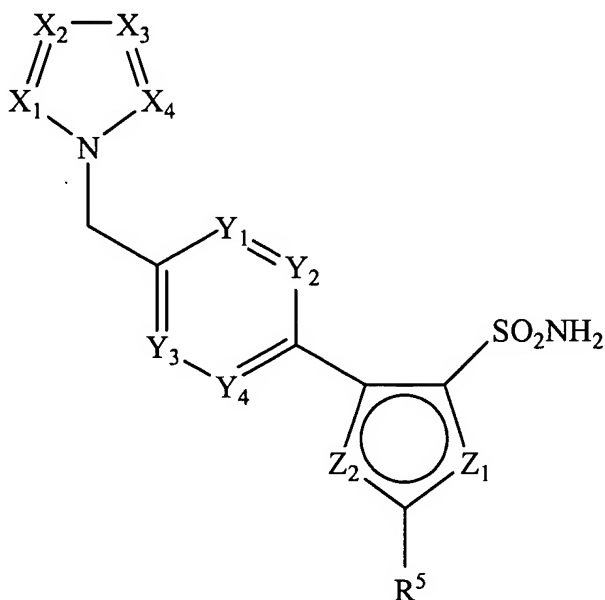
35. (Original) A kit of parts comprising components:

- (a) a pharmaceutical formulation including a compound as defined in claim 1, or a pharmaceutically acceptable salt thereof, in admixture is with a pharmaceutically-acceptable adjuvant, diluent or carrier; and
- (b) a pharmaceutical formulation including an angiotensin converting enzyme inhibitor, in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier, which

components (a) and (b) are each provided in a form that is suitable for administration in conjunction with the other.

36. (Withdrawn) A process for the preparation of a compound as defined in claim 1, which comprises:

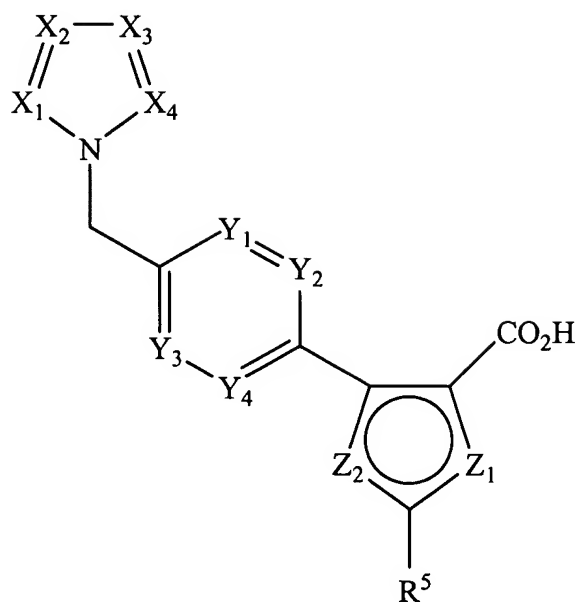
(i) for compounds of formula I in which  $R^4$  represents  $--S(O)_2N(H)C(O)R^6$  or  $--S(O)_2N(H)S(O)_2R^6$ , and  $R^6$  is as defined in claim 1, reaction of a compound of formula II,



wherein  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Y_4$ ,  $Z_1$ ,  $Z_2$  and  $R^5$  are as defined in claim 1 with a compound of formula III,  $R^6GL^1$  III wherein G represents  $C(O)$  or  $S(O)_2$  (as appropriate),  $L^1$  represents a suitable leaving group and  $R^6$  is as defined in claim 1;

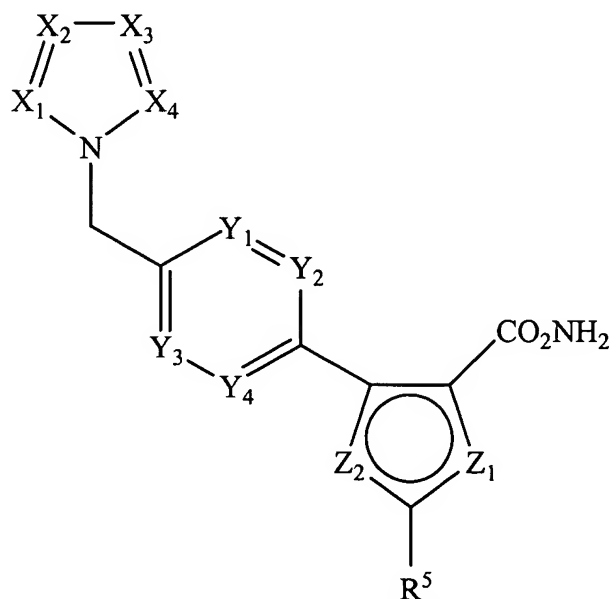
(ii) for compounds of formula I in which  $R^4$  represents  $--S(O)_2N(H)C(O)R^6$  and  $R^6$  represents  $C_{1-6}$  alkoxy- $C_{1-6}$ -alkyl, coupling of a compound of formula II as defined above with a compound of formula IV,  $R^{6a}CO_2H$  IV wherein  $R^{6a}$  represents  $C_{1-6}$  alkoxy- $C_{1-6}$ -alkyl;

(iii) for compounds of formula I in which  $R^4$  represents  $--C(O)N(H)S(O)_2R^6$  and  $R^6$  is as defined in claim 1, coupling of a compound of formula V,



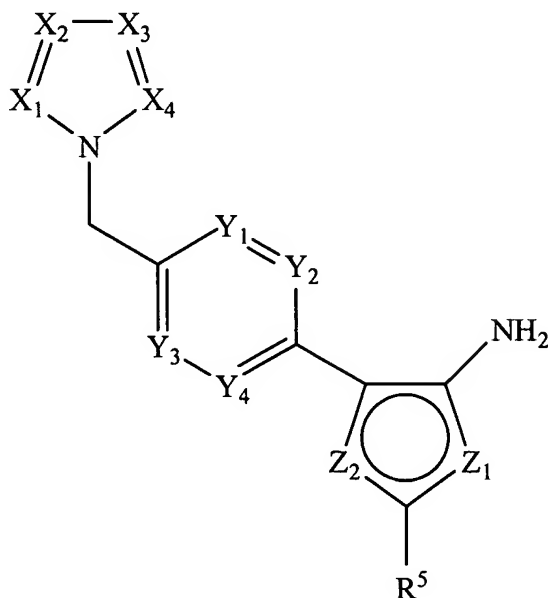
wherein  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Y_4$ ,  $Z_1$ ,  $Z_2$  and  $R^5$  are as defined in claim 1, with a compound of formula VI,  $R^6S(O)_2NH_2$  VI wherein  $R^6$  is as defined in claim 1;

(iv) for compounds of formula I in which  $R^4$  represents  $--C(O)N(H)S(O)_2R^6$  and  $R^6$  is as defined in claim 1, coupling of a compound of formula VII,



wherein  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Y_4$ ,  $Z_1$ ,  $Z_2$  and  $R^5$  are as defined in claim 1, with a compound of formula VIII,  $R^6S(O)_2Cl$  VIII wherein  $R^6$  is as defined in claim 1;

(v) for compounds of formula 1 in which  $R^4$  represents  $--N(H)S(O)_2N(H)C(O)R^7$  and  $R^7$  is as defined in claim 1, reaction of a compound of formula IX,



wherein  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Y_4$ ,  $Z_1$ ,  $Z_2$  and  $R^5$  are as defined in claim 1, with a compound of formula X,  $R^7C(O)N(H)S(O)_2Cl$  X wherein  $R^7$  is as defined in claim 1;

(vi) for compounds of formula I in which  $R^4$  represents  $--N(H)C(O)N(H)S(O)_2R^7$  and  $R^7$  is as defined in claim 1, reaction of a compound of formula IX as defined above with a compound of formula XI,  $R^7S(O)_2N(H)C(O)OR^x$  XI wherein  $R^x$  represents  $C_{1-2}$  alkyl and  $R^7$  is as defined in claim 1; (vii) for compounds of formula I in which  $R^4$  represents  $--N(H)C(O)N(H)S(O)_2R^7$  and  $R^7$  is as defined in claim 1, reaction of a compound of formula IX as defined above with a compound of formula XII,  $R^7S(O)_2NCO$  XII wherein  $R^7$  is as defined in claim 1; (viii) for compounds of formula I in which  $R^4$  represents  $--S(O)_2N(H)C(O)R^6$  and  $R^6$  represents  $C_{1-6}$  alkylamino, reaction of a compound of formula II as defined above with a compound of formula XIII,  $R^{6b}NCO$  XIII wherein  $R^{6b}$  represents  $C_{1-6}$  alkyl; or (ix) for compounds of formula I in which  $R^4$  represents  $--S(O)_2N(H)C(O)R^6$  and  $R^6$  represents di- $C_{1-6}$ alkylamino, reaction of a corresponding compound of formula I in which  $R^4$  represents  $--S(O)_2N(H)C(O)R^6$  and  $R^6$  represents  $C_{1-6}$  alkoxy with a compound formula XIV,  $R^{6c}N(H)R^{6d}$  XIV wherein  $R^{6c}$  and  $R^{6d}$  independently represent  $C_{1-6}$  alkyl.

37. (Withdrawn) A compound of formula II as defined in claim 36 or a protected derivative thereof.

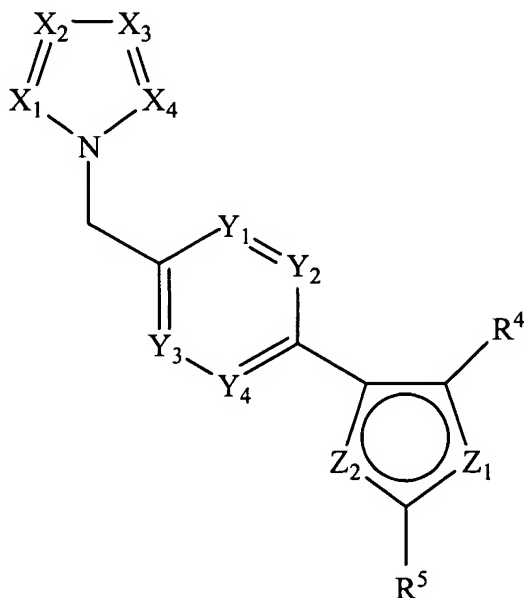
38. (Withdrawn) A compound of formula II as claimed in claim 36, or a protected derivative thereof, wherein  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  all represent  $--CH--$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ , and  $Y_4$  all represent  $--CH--$ ,  $Z_1$  represents  $--S--$  or  $--CH=CH--$ ,  $Z_2$  represents  $--CH--$  and  $R^5$  represents n-butyl or iso-butyl.

39. (Withdrawn) A compound of formula V as defined in claim 36 or a protected derivative thereof.

40. (Withdrawn) A compound of formula VII as defined in claim 36 or a protected derivative thereof.

41. (Withdrawn) A compound of formula IX as defined in claim 36 or a protected derivative thereof.

42. (New) A compound of formula I,



wherein

$X_1$  represents  $--CH--$ ;

$X_2$  represents  $--N--$ ;

$X_3$  represents  $--C(R^2)--$ ;

$X_4$  represents  $--C(R^3)--$ ;

$R^2$  and  $R^3$  independently represent H,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,

$C_{1-6}$  alkoxy- $C_{1-6}$ -alkyl or halo;

$Y_1$ ,  $Y_2$ ,  $Y_3$ , and  $Y_4$  independently represent -CH- or -CF-;

$Z_1$  represents -S-;

$Z_2$  represents -CH-, -O-, -S- or -N-;

provided that:

- (a)  $Z_1$  and  $Z_2$  are not the same;
- (b) when  $Z_1$  represents -CH=CH-, then  $Z_2$  may only represent -CH- or -N-; and
- (c) other than in the specific case in which  $Z_1$  represents -CH=CH-, and  $Z_2$  represents -CH-, when one  $Z_1$  and  $Z_2$  represents -CH-, then the other represents -O- or -S-;

$R^4$  represents -S(O)<sub>2</sub>N(H)C(O) $R^6$ , -S(O)<sub>2</sub>N(H)S(O)<sub>2</sub> $R^6$ , -C(O)N(H)S(O)<sub>2</sub> $R^6$ ,

or, when  $Z_1$  represents -CH=CH-,  $R^4$  may represent

-N(H)S(O)<sub>2</sub>N(H)C(O) $R^7$  or -N(H)C(O)N(H)S(O)<sub>2</sub> $R^7$ ;

$R^5$  represents  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkoxy- $C_{1-6}$ -alkyl or di- $C_{1-3}$ -alkylamino- $C_{1-4}$ -alkyl;

$R^6$  represents  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkoxy- $C_{1-6}$ -alkyl,

$C_{1-3}$  alkoxy- $C_{1-6}$ -alkoxy,  $C_{1-6}$  alkylamino or di- $C_{1-6}$  alkylamino; and

$R^7$  represents  $C_{1-6}$  alkyl,

or a pharmaceutically-acceptable salt thereof.